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CLAIMS:

What is claimed is:

1   1.   A method in a data processing system for minimizing

2   inconsistency between a set of data sources, the method

3   comprising:

4   sending a first signal indicating that new content

5   is present for the set of data sources;

6   transmitting the new content to the set of data

7   sources, wherein the new content is unavailable for

8   distribution by the set of data sources until a second

9   signal is received by the set of data sources; and

10   sending the second signal to the set of data sources

11   if an acknowledgment is received from all of the set of

12   data sources.

1   2.   The method of claim 1 further comprising:

2   sending the second signal to each data sources

3   returning the acknowledgment after a period of time has

4   passed without all of the set of data sources returning

5   the acknowledgment.

1   3.   The method of claim 2 further comprising:

2   removing a node from the set of nodes if the node

3   fails to return the acknowledgment within the period of

4   time.

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1   4.   The method of claim 1, wherein the first signal is a

2   pull notification indicating that the new content will be

3   pulled by the set of nodes.

1   5.   The method of claim 1, wherein the second signal is

2   a push notification indicating the new content will be

3   transmitted to the set of nodes.

1   6.   The method of claim 1, wherein the new content is an

2   update to existing content located at the set of nodes.

1   7.   The method of claim 1, wherein the set of nodes

2   includes at least one of a Web server and a data cache.

1   8.   The method of claim 1 further comprising:

2   billing a set of clients for maintaining content at

3   the set of data sources.

1   9.   The method of claim 1 further comprising:

2   receiving the new content from a client based on a

3   contract with the client to maintain content at the set

4   of data sources.

1   10.   The method of claim 1, wherein the first signal

2   includes the content.

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1   11.   A method in a data processing system for providing

2   content, the method comprising:

3   receiving a first signal to obtain new content from

4   a server;

5   receiving the new content after receiving the first

6   signal;

7   storing the new content in a location in which the

8   new content is unavailable to clients until a second

9   signal is received;

10   sending an acknowledgment after all of the new

11 content is received; and

12   making the new content available to clients in

13 response to receiving a second signal.

1   12.   The method of claim 11, wherein the content is

2   received using a pull mechanism.

1   13.   The method of claim 11, wherein the content is

2   received using a push mechanism.

1   14.   The method of claim 11, wherein the data processing

2   system is one of a Web server and a data cache.

1   15.   The method of claim 11 further comprising:

2   providing current content instead of new content if

3   an absence of the second signal is present.

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1 16. A method in a data processing system for providing

2 content, the method comprising:

3   receiving new content from a customer;

4   transmitting the new content to a set of data

5 sources, wherein the new content is unavailable for

6 distribution by the set of data sources until a selected

7 signal is received by the set of data sources; and

8   sending the selected signal to the set of data

9 sources if an acknowledgment is received from all of the

10 set of data sources.

1 17. The method of claim 16, wherein the new content is a

2 Web page.

1 18. The method of claim 16 further comprising:

2   billing the client for maintaining the content at

3 the set of data sources.

1 19. The method of claim 16, wherein the set of nodes

2 includes at least one of a Web server and a data cache.

1 20. A method in a data processing system for minimizing

2 a window of inconsistency in data between a plurality of

3 nodes, the method comprising:

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4   sending a new content signal indicating that new

5   content is present for the plurality of nodes;

6   monitoring for acknowledgments from the set

7   plurality of nodes; and responsive to receiving

8   acknowledgments from all nodes within the plurality of

9   nodes, sending a publish signal to the plurality of

10 nodes, wherein the signal causes the plurality of nodes

11 to make the new content available when the publish signal

12 is received.

1   21.   The method of claim 20 further comprising:

2   transmitting the new content to the plurality of

3   nodes.

1   22.   The method of claim 21, wherein the new content is

2   pushed to the plurality of nodes.

1   23.   The method of claim 20, wherein the new content is

2   pulled by the plurality of nodes.

1   24.   A data processing system comprising:

2   a bus system;

3   a communications unit connected to the bus system;

4   a memory connected to the bus system, wherein the

5   memory includes a set of instructions; and

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6   a processing unit connected to the bus system,

7 wherein the processing unit executes the set of

8 instructions to send a first signal indicating that new

9 content is present for a set of data sources; transmit

10 the new content to the set of data sources, wherein the

11 new content is unavailable for distribution by the set of

12 data sources until a second signal is received by the set

13 of data sources; and send the second signal to the set of

14 data sources if an acknowledgment is received from all of

15 the set of data sources.

1 25. A data processing system comprising:

2   a bus system;

3   a communications unit connected to the bus system;

4   a memory connected to the bus system, wherein the

5 memory includes a set of instructions; and

6   a processing unit connected to the bus system,

7 wherein the processing unit executes the set of

8 instructions to receive a first signal to obtain new

9 content from a server; receive the new content after

10 receiving the first signal; store the new content in a

11 location in which the new content is unavailable to

12 clients until a second signal is received; send an

13 acknowledgment after all of the new content is received;

14 and make the new content available to clients in response

15 to receiving a second signal.

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1 26. A data processing system comprising:

2   a bus system;

3   a communications unit connected to the bus system;

4   a memory connected to the bus system, wherein the

5 memory includes a set of instructions; and

6   a processing unit connected to the bus system,

7 wherein the processing unit executes the set of

8 instructions to receive new content from a customer;

9 transmit the new content to a set of data sources,

10 wherein the new content is unavailable for distribution

11 by the set of data sources until a selected signal is

12 received by the set of data sources; and send the

13 selected signal to the set of data sources if an

14 acknowledgment is received from all of the set of data

15 sources.

1 27. A data processing system comprising:

2   a bus system;

3   a communications unit connected to the bus system;

4   a memory connected to the bus system, wherein the

5 memory includes a set of instructions; and

6   a processing unit connected to the bus system,

7 wherein the processing unit executes the set of

8 instructions to send a new content signal indicating that

9 new content is present for the plurality of nodes,

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10 monitor for acknowledgments from the set plurality of

11 nodes, and send a publish signal to the plurality of

12 nodes in response to receiving acknowledgments from all

13 nodes within the plurality of nodes, wherein the signal

14 causes the plurality of nodes to make the new content

15 available when the publish signal is received.

1   28.   The data processing system of claim 27, wherein the

2   new content is pushed to the plurality of nodes.

1   29.   The data processing system of claim 27, wherein the

2   new content is pulled by the plurality of nodes.

1   30.   A data processing system for minimizing

2   inconsistency between a set of data sources, the data

3   processing system comprising:

4   first sending means for sending a first signal

5   indicating that new content is present for the set of

6   data sources;

7   transmitting means for transmitting the new content

8   to the set of data sources, wherein the new content is

9   unavailable for distribution by the set of data sources

10 until a second signal is received by the set of data

11 sources; and

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12   second sending means for sending the second signal

13   to the set of data sources if an acknowledgment is

14   received from all of the set of data sources.

1   31.   The data processing system of claim 30 further

2   comprising:

3   third sending means for sending the second signal to

4   each data sources returning the acknowledgment after a

5   period of time has passed without all of the set of data

6   sources returning the acknowledgment.

1   32.   The data processing system of claim 31 further

2   comprising:

3   removing means for removing a node from the set of

4   nodes if the node fails to return the acknowledgment

5   within the period of time.

1   33.   The data processing system of claim 30, wherein the

2   first signal is a pull notification indicating that the

3   new content will be pulled by the set of nodes.

1   34.   The data processing system of claim 30, wherein the

2   second signal is a push notification indicating the new

3   content will be transmitted to the set of nodes.

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1 35. The data processing system of claim 30, wherein the

2 new content is an update to existing content located at

3 the set of nodes.

1 36. The data processing system of claim 30, wherein the

2 set of nodes includes at least one of a Web server and a

3 data cache.

1 37. The data processing system of claim 30 further

2 comprising:

3   billing means for billing a set of clients for

4 maintaining content at the set of data sources.

1 38. The data processing system of claim 30 further

2 comprising:

3   receiving means for receiving the new content from a

4 client based on a contract with the client to maintain

5 content at the set of data sources.

1 39. The data processing system of claim 30, wherein the

2 first signal includes the content.

1 40. A data processing system for providing content, the

2 data processing system comprising:

3   first receiving means for receiving a first signal

4 to obtain new content from a server;

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5　　　second receiving means for receiving the new content

6　after receiving the first signal;

7　　　storing means for storing the new content in a

8　location in which the new content is unavailable to

9　clients until a second signal is received;

10　　　sending means for sending an acknowledgment after

11　all of the new content is received; and

12　　　making means for making the new content available to

13　clients in response to receiving a second signal.

1　41.　The data processing system of claim 40, wherein the

2　content is received using a pull mechanism.

1　42.　The data processing system of claim 40, wherein the

2　content is received using a push mechanism.

1　43.　The data processing system of claim 40, wherein the

2　data processing system is one of a Web server and a data

3　cache.

1　44.　The data processing system of claim 40 further

2　comprising:

3　　　providing means for providing current content

4　instead of new content if an absences of the second

5　signal is present.

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1   45.   A data processing system for providing content, data

2   processing system comprising:

3   receiving means for receiving new content from a

4   customer;

5   transmitting means for transmitting the new content

6   to a set of data sources, wherein the new content is

7   unavailable for distribution by the set of data sources

8   until a selected signal is received by the set of data

9   sources; and

10   sending means for sending the selected signal to the

11   set of data sources if an acknowledgment is received from

12   all of the set of data sources.

1   46.   The data processing system of claim 45, wherein the

2   new content is a Web page.

1   47.   The data processing system of claim 45 further

2   comprising:

3   billing means for billing the client for maintaining

4   the content at the set of data sources.

1   48.   The data processing system of claim 45, wherein the

2   set of nodes includes at least one of a Web server and a

3   data cache.

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1   49. A data processing system for minimizing a window of

2   inconsistency in data between a plurality of nodes, the

3   data processing system comprising:

4   sending means for sending a new content signal

5   indicating that new content is present for the plurality

6   of nodes;

7   monitoring means for monitoring for acknowledgments

8   from the set plurality of nodes; and

9   sending means, responsive to receiving

10   acknowledgments from all nodes within the plurality of

11   nodes, sending a publish signal to the plurality of

12   nodes, wherein the signal causes the plurality of nodes

13   to make the new content available when the publish signal

14   is received.

1   50. The data processing system of claim 49 further

2   comprising:

3   transmitting means for transmitting the new content

4   to the plurality of nodes.

1   51. The data processing system of claim 50, wherein the

2   new content is pushed to the plurality of nodes.

1   52. The data processing system of claim 49, wherein the

2   new content is pulled by the plurality of nodes.

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1   53.   A computer program product in a computer readable

2   medium for minimizing inconsistency between a set of data

3   sources, the computer program product comprising:

4   first instructions for sending a first signal

5   indicating that new content is present for the set of

6   data sources;

7   second instructions for transmitting the new content

8   to the set of data sources, wherein the new content is

9   unavailable for distribution by the set of data sources

10 until a second signal is received by the set of data

11 sources; and

12   third instructions for sending the second signal to

13 the set of data sources if an acknowledgment is received

14 from all of the set of data sources.

1   54.   The computer program product of claim 53 further

2   comprising:

3   fourth instructions for sending the second signal to

4   each data sources returning the acknowledgment after a

5   period of time has passed without all of the set of data

6   sources returning the acknowledgment.

1   55.   The computer program product of claim 54 further

2   comprising:

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3   fifth instructions for removing a node from the set

4   of nodes if the node fails to return the acknowledgment

5   within the period of time.

1   56.   The computer program product of claim 53, wherein

2   the first signal is a pull notification indicating that

3   the new content will be pulled by the set of nodes.

1   57.   The computer program product of claim 53, wherein

2   the second signal is a push notification indicating the

3   new content will be transmitted to the set of nodes.

1   58.   The computer program product of claim 53, wherein

2   the new content is an update to existing content located

3   at the set of nodes.

1   59.   The computer program product of claim 53, wherein

2   the set of nodes includes at least one of a Web server

3   and a data cache.

1   60.   The computer program product of claim 53 further

2   comprising:

3   fourth instructions for billing a set of clients for

4   maintaining content at the set of data sources.

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1　61.　The computer program product of claim 53 further

2　comprising:

3　　　　fourth instructions for receiving the new content

4　from a client based on a contract with the client to

5　maintain content at the set of data sources.

1　62.　The computer program product of claim 53, wherein

2　the first signal includes the content.

1　63.　A computer program product in a computer readable

2　medium for providing content, the computer program

3　product comprising:

4　　　　first instructions for receiving a first signal to

5　obtain new content from a server;

6　　　　second instructions for receiving the new content

7　after receiving the first signal;

8　　　　third instructions for storing the new content in a

9　location in which the new content is unavailable to

10　clients until a second signal is received;

11　　　　fourth instructions for sending an acknowledgment

12　after all of the new content is received; and

13　　　　fifth instructions for making the new content

14　available to clients in response to receiving a second

15　signal.

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1   64.   The computer program product of claim 63, wherein

2   the content is received using a pull mechanism.

1   65.   The computer program product of claim 63, wherein

2   the content is received using a push mechanism.

1   66.   The computer program product of claim 63, wherein

2   the data processing system is one of a Web server and a

3   data cache.

1   67.   The computer program product of claim 63 further

2   comprising:

3   fourth instructions for providing current content

4   instead of new content if an absence of the second signal

5   is present.

1   68.   A computer program product in a computer readable

2   medium for providing content, the computer program

3   product comprising:

4   first instructions for receiving new content from a

5   customer;

6   second instructions for transmitting the new content

7   to a set of data sources, wherein the new content is

8   unavailable for distribution by the set of data sources

9   until a selected signal is received by the set of data

10 sources; and

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11   third instructions for sending the selected signal

12 to the set of data sources if an acknowledgment is

13 received from all of the set of data sources.

1   69.   The computer program product of claim 68, wherein

2   the new content is a Web page.

1   70.   The computer program product of claim 68 further

2   comprising:

3   fourth instructions for billing the client for

4   maintaining the content at the set of data sources.

1   71.   The computer program product of claim 68, wherein

2   the set of nodes includes at least one of a Web server

3   and a data cache.

1   72.   A computer program product in a computer readable

2   medium for minimizing a window of inconsistency in data

3   between a plurality of nodes, the computer program

4   product comprising:

5   first instructions for sending a new content signal

6   indicating that new content is present for the plurality

7   of nodes;

8   second instructions for monitoring for

9   acknowledgments from the set plurality of nodes; and

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10   third instructions, responsive to receiving

11 acknowledgments from all nodes within the plurality of

12 nodes, sending a publish signal to the plurality of

13 nodes, wherein the signal causes the plurality of nodes

14 to make the new content available when the publish signal

15 is received.

1   73. The computer program product of claim 72 further

2   comprising:

3   fourth instructions for transmitting the new

4   content to the plurality of nodes.

1   74. The computer program product of claim 73, wherein

2   the new content is pushed to the plurality of nodes.

1   75. The computer program product of claim 72, wherein

2   the new content is pulled by the plurality of nodes.